

The Growth and Development Status of Homeless Children Entering Shelters in Boston

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Synopsis

In order to characterize the children who enter emergency shelters in Boston, we reviewed the data collected at intake interviews by the pediatric nurse practitioner visiting 10 family shelters and one hotel in Boston as part of the Boston Health Care

for the Homeless Project. Families were interviewed soon after their entry into the shelter. Children were weighed and measured, and the Denver Developmental Screening Test (DDST) was administered. From November 1986 to November 1987, 133 families with 213 children were interviewed.

Ninety-four percent of the children were in the care of their mothers, and 92 percent were younger than 5 years of age. Sixty-five percent of the families were black, 20 percent were white, and 11 percent were Hispanic. Eighty-nine percent of the families were receiving Aid to Families with Dependent Children benefits, 90 percent were receiving Medicaid benefits, 72 percent were receiving food stamps, and 52 percent were receiving benefits under the Special Supplemental Food Program for Women, Infants, and Children.

Eighty-five percent of the children were reported to have a regular source of primary pediatric care, and 23 percent were reported to have medical problems. Weight-for-age, weight-for-height, and height-for-age measurements were similar to those reported for national samples of low income children. Ten children (4.7 percent) were found to have abnormal or questionable DDST examinations.

HOMELESSNESS is an increasingly serious problem in the United States. A recent survey of 26 cities by the United States Conference of Mayors (1) found an average increase of 21 percent in the demand for emergency shelter during 1987. The number of reported homeless families with children has increased by 32 percent since 1986. On average, one-third of the total homeless population was reported to be family members; 1987 was the third consecutive year in which this group has been the most rapidly growing segment of the homeless population.

A census of the homeless conducted by the Emergency Shelter Commission of the City of Boston on September 30, 1986 (2), found 2,162 homeless persons in shelters in the city, of whom about 20 percent were family members. The 376 homeless children counted represented a 272 percent increase over the number of homeless children counted in a similar census conducted by the Emergency Shelter Commission in October 1983,

and an increase in the proportion of the total homeless population who are children from 5.0 to 13.1 percent (2).

Homeless families are poor families. A study of 80 homeless families in 14 family shelters in Massachusetts found that 91 percent were receiving Aid to Families with Dependent Children (AFDC) benefits (3). Children raised in poverty are at increased risk for adverse health (4,5) and developmental (6,7) outcomes, compared to children who are not poor. Families who become homeless have been suggested to differ from comparably poor but domiciled families (3,8). Family homelessness, in this view, is not the exclusive result of increasingly severe economic factors, such as the worsening shortage of low income housing in many urban areas and the declining value of federally funded programs of economic support. Psychosocial factors, such as personality disorders and other emotional problems of the mothers, play an important role as well. The maternal factors are reflected in a

high prevalence of developmental and emotional problems among the children (3,9).

Our clinical impression, and our hypothesis, is that the children of families who become homeless are similar in general health and development to comparable poor, domiciled children, at least at the time they first become homeless and enter the shelter environment. The long-term effects of the shelter environment are unclear, and may vary with the characteristics of the individual family and shelter experience.

To test the hypothesis, we examined data collected at entry into family shelters of 133 families with 213 children in Boston, and compared them with available data from other low-income children.

Methods

The Boston Health Care for the Homeless Project is funded by the Robert Wood Johnson Foundation and the Massachusetts Department of Public Welfare to provide health care and social services to homeless family members in shelters.

A pediatric nurse practitioner and social worker visited regularly each of 10 family shelters and 1 hotel. The capacity of shelters ranged from 10 to 80 beds, usually fully occupied, with 25 to 30 rooms available for homeless families in the hotel. Families were seen soon after their entry into the shelter.

The majority of the shelter directors opposed prospective data collection among the residents of the facilities when they were consulted in November 1986. They believed that such activities might be an invasion of privacy at a time of heightened stress and crisis for the newly homeless families. Therefore, the study could be undertaken only as a retrospective analysis of data collected for clinical purposes at the intake medical visit.

The medical and social information was obtained to assess the current health status of the child and his or her need for services, including nutrition, primary care, and developmental intervention. Followup arrangements were made for all children lacking a primary care site, including referral to the nurse practitioner's clinical session at the Boston City Hospital Pediatric Primary Care Clinic.

Parents were interviewed with regard to family demographic characteristics, benefits being received, the length of time they had been homeless, the length of time in shelters, their primary care site, and the children's health problems and school and daycare status. Children were weighed and measured to determine their nutritional status. Low

weight-for-height and low height-for-age were defined as those values below the fifth percentile of the National Center for Health Statistics reference population (10), taken to reflect acute undernutrition and chronic undernutrition, respectively (11,12).

The Denver Developmental Screening Test (DDST) was administered to detect developmental delay. DDST is a validated screening tool for assessing developmental maturation in well children from birth to 6 years of age (13). When the test is administered, children are asked to perform various age-appropriate tasks, or items, and parents are asked about the children's abilities in four areas, or sectors, personal-social, fine motor-adaptive, language, and gross motor abilities. The child's ability to perform a given task is compared to that of the normative population at the same age. Depending on the number of items the child passes, fails, or refuses to perform in each sector, there are four possible outcomes, abnormal, questionable, normal, or untestable.

The recommended procedure is that children with abnormal, questionable, or untestable results be rescreened 2 to 3 weeks later, and if the rescreening is still not normal, and the parent indicates that the child's performance and behavior are typical, the child should be referred to a specialist for further evaluation (14). The DDST has gained broad acceptance in pediatric practice and its use is recommended by major texts in pediatric primary care (15-17).

One hundred thirty-three consecutively entered parents or guardians of a total of 213 children in shelters were interviewed from November 1986 to November 1987. Children were weighed, measured, and screened with the DDST on the second or third visit with the family.

The DDST was administered to children younger than 6 years by the pediatric nurse practitioner, who was trained in its use at the Walter E. Fernald State School, Waltham, MA, in 1975, and who has had 13 years of clinical experience in its application. The DDST was administered in a quiet area and scored as specified by the DDST Reference Manual (14). Retrospective record review was approved by the Human Studies Committee of the Trustees of Health and Hospitals of the City of Boston.

Children were weighed wearing light clothing and no shoes on an Ohaus portable electronic scale, which was calibrated in November 1986 and rechecked for accuracy in May 1987. Supine length of children younger than 2 years of age was

measured on a portable wooden measuring board. The height of children older than 2 years was measured against a wall with a right angle and a plastic tape. Values for height and weight were compared with the National Center for Health Statistics reference population, using the Centers for Disease Control's Anthropometric Software Package (18).

Results

Of the 213 children examined, 204 (96 percent) were in a family shelter and 9 (4 percent) were housed in a hotel. Their median age was 25 months, and 92 percent of the children were younger than 5 years.

Two hundred and one children (94 percent) were in the care of their mothers, and only 3 (1 percent) were in the care of both parents. Six (2) percent were in the care of an aunt or uncle, and 5 (2 percent) were in the care of another guardian.

Sixty-five percent of the families were black, 23 percent white, 11 percent Hispanic, and 1 percent were another category.

The families had been in the shelter situation a median of 1 month (ranging from 1 to 6 months) and had been homeless a median of 3 months (ranging from 1 to 60 months); 84 percent had been homeless for less than 1 year.

Data were missing on 7 (5 percent) of the 133 guardians interviewed. Of the 126 guardians for whom data were available, 116 (92 percent) reported receiving AFDC benefits, while 117 (93 percent) reported receiving Medicaid benefits, 88 (70 percent) reported receiving food stamps, and 68 (54 percent) were in the Special Supplemental Food Program for Women, Infants, and Children (WIC). Only one guardian was receiving benefits from the Social Security Administration's Supplemental Security Income program, one was on general relief, and two had private health insurance. Twenty-nine percent of the families were receiving a combination of AFDC, Medicaid, and food stamp benefits; and 43 percent were receiving AFDC, Medicaid, food stamp, and WIC benefits.

The guardians of 181 (85 percent) of the children reported that the children had a regular source of pediatric care; for 13 (6 percent) no source was reported; and the information was missing for 19 children (9 percent). Illness was reported for 49 children (23 percent); 12 (6 percent) were reported to have asthma, 11 (5 percent) were reported to have ear disease, 6 (2 percent) were reported with anemia, and 5 (2 percent) were reported to be

underweight. Seventeen children (8 percent) were reported to be taking medication; 9 (4 percent) were taking antibiotics, 5 (2 percent) were taking bronchodilators, and 5 (2 percent) were taking iron.

Weight and height were obtained for 207 children; weight alone was obtained for 3 children, and neither was obtained for 3 children. Sixteen children (7.7 percent) had height-for-age below the fifth percentile, 6 (2.9 percent) had weight-for-height below the fifth percentile, and 16 (7.6 percent) had weight-for-age below the fifth percentile. None of these proportions differed significantly from the expected 5 percent (binomial proportions test, Z less than 2).

Of the 213 children tested with the DDST, 203 (95 percent) had tests which were scored as normal, 1 (1 percent) had a test which was scored as abnormal, 9 (4 percent) had tests scored questionable, and none was scored untestable. Seven children failed in the language sector only, 2 failed in both language and fine motor-adaptive, and 1 failed in fine motor ability only.

Discussion

Because children raised in poverty are at increased risk for adverse health and developmental outcomes, their needs for primary health care and access to appropriate referral services are especially great.

In New York City, poor children who are homeless have been shown to have a higher prevalence of health problems than poor children who are not homeless, including immunization delay, iron deficiency, plumbism, child abuse and neglect, and hospital admissions (19-21). It is not known if the health status of those children, many of whom were long-term residents of welfare hotels, is similar to that of children entering family shelters in Boston.

Our data demonstrate that, in general, the children were young, from minority groups, living with their mothers, and covered by AFDC and Medicaid. Thirty percent of the families were not receiving food stamps, and 46 percent were not receiving WIC benefits. While the reported rate of nonparticipation in WIC by eligible women for the State of Massachusetts in 48 percent (22), some homeless families may not be enrolled in WIC because of a lack of secure personal storage for refrigerated items in the shelters and hotel, and the high degree of mobility of the families.

With regard to nutritional status, we found that on entry into the shelter situation there was not a

statistically significant increased prevalence of low height-for-age, which would have indicated chronic undernutrition. This may be in part because of small sample size; the measured prevalence of 7.7 percent is comparable to that reported by the Centers for Diseases Control Pediatric Nutrition Surveillance System (PNSS), which monitors the nutritional status of children from high-risk, low-income families participating in certain federally funded programs in 38 States. PNSS reports a prevalence of acute undernutrition (low weight-for-height) of less than 5 percent, and a prevalence of chronic undernutrition (low height-for-age) of 7 to 16 percent in children of different age and racial groups; for black children aged 24 to 35 months, prevalence of low height-for-age is approximately 8 percent (10).

Only 5 percent of the children examined had abnormal or questionable scores on the DDST. This is similar to the 7 percent scored abnormal or questionable among 2,000 indigent children tested in Denver in the DDST validation study of Frankenburg and coworkers (13). As it has been shown that children living in poverty have worse developmental outcomes than their nonpoor peers (7), low prevalence of DDST abnormalities should not be interpreted to mean that the children are not in need of developmentally based services. The results suggest, however, that the developmental status of children entering family shelters in Boston is comparable to that of other low-income children, as was hypothesized.

Because ours was a retrospective review of available clinical data, much important information was not gathered, including the psychological status of the children's guardians, and more detailed data on the health, behavioral, and developmental status of the children.

The stress of life in a shelter exacts a grim toll on the welfare of homeless families, and providing appropriate services to homeless families with children needs to be a high priority public health goal.

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